

WEST INDIAN BATRACHIA IN THE MUSEUM OF COMPARATIVE ZOOLOGY.

BY SAMUEL GARMAN.

PHYLLOBATES TRINITATIS sp. n.

Trinidad.

Tongue subcordiform, free behind. Snout shorter than the diameter of the eye, broad, very blunt-angled at the end; nostrils nearer to the tip than to the eye. Loreal region vertical or slightly concave. Tympanum about half the diameter of the eye. When the leg is turned forward the tibio-tarsal articulation reaches the orbit. Skin smooth. Outer metatarsal tubercle small; disks about half as large as the tympanum.

Back greyish-brown with cloudings of darker or with blotches of brown along the median line; legs with transverse bands and arms blotched or banded with brown. A black band around the snout through the eyes, over the shoulders and along the flanks. Upper lips lighter; both lips grow dark with age. Fingers and toes ringed with brown. Ventral surface white; a dark band across the thorax. On one specimen of twenty the chin and throat are dark, and on all the older ones the dark color is inclined to spread backward on the chest.

HYLODES MARTINICENSIS *Tschudi*.

Martinique; St. Kitts; Saba; Dominica; Bayamon, Porto Rico.

HYLODES LENTUS Cope.

St. Thomas; Puerto Plata, San Domingo.

In the specimen from St. Thomas the vomerine teeth are somewhat separated on the median line; these teeth are continuous from side to side in the form from San Domingo. The latter has the upper surface of the legs and the hinder half of the body of a bright-red color in life.

HYLODES LUTEOLUS Gosse; Gthr.

Kingston and Moneague, Jamaica.

HYLODES RICORDI Dum. Bibr.

Matanzas, Cuba.

LEPTODACTYLUS PENTADACTYLUS Laur.; Ptrs.

St. Kitts; Dominica.

LEPTODACTYLUS LONGIROSTRIS Blgr.

Trinidad.

This frog is placed here with some hesitation. On the middle of the flank there is a fold, forming a narrow, white streak, and at the upper edge there is a similar one, more pronounced backward. The back is irregularly spotted with light-edged spots of brown.

LEPTODACTYLUS ALBILABRIS Gthr.; Blgr.

Bayamon and San Juan, Porto Rico.

Very abundant.

LEPTODACTYLUS VALIDUS sp. n.

Kingston, St. Vincent.

Tongue oval, slightly nicked behind. Vomerine teeth in two short, slightly arched series behind the choanae. Snout short, as long as the eye, blunt, canthus depressed, rounded, nostril nearer to the tip than to the eye. Interorbital space near the width of the supraorbital. Tympan-

num nearly three-fourths as wide as the eye. A glandular fold above the tympanum; another behind the angle of the mouth. Digits slightly swollen at the tips; fingers moderate, first a little longer than second; toes slender, with a narrow fringe; outer metatarsal tubercle small and indistinct; articular tubercles well developed. When turned forward the tibio-tarsal articulation reaches the eye. Skin smooth; no folds on the flanks. The hinder part of the body bears numerous very small papillæ, in cases scattered over the whole body. Ventral fold indistinct or absent. Male with an internal subgular vocal sac, and two strong conical tubercles on the inside of the first digit.

Brown; a whitish band across the supraorbitals on the forehead; a dark blotch from the orbits to an ashy spot on the middle of the back; with dark spots or cloudings on the hinder portion of the back, on the flanks and on the sides of the limbs. Legs, feet and digits with transverse bands of brown. Belly whitish; chin and throat mottled with brown, becoming dark in males. A white streak from the eye to the angle of the mouth, another below the eye, another down the end of the snout, and two others between the latter and the eye. These streaks become obsolete on very dark colored specimens; that from the eye is often continued to the shoulder where it meets a white mark around the arm. The minute papillæ are usually light-colored and often are surmounted by a black tip.

A male measures in length of body one and five-eighths inches and in leg two and three-eighths; a female is one and three-fourths in body and two and a half inches in length of leg.

BUFO MARINIS L.; *Schneid.*

Trinidad; Grenada; Barbadoes; St. Lucia; St. Kitts; Martinique; Nevis; Montserrat; Jamaica.

At Nevis it was said that these toads had recently been introduced from Barbadoes because it was thought they were hostile to rats.

BUFO PELTOCEPHALUS (Bibr.) *Tschudi*.

Cuba.

BUFO GUTTUROSUS *Gthr.*

Port au Prince, Hayti; Cuba; Bayamon, Porto Rico.

A very young one resembles small specimens of *B. lentiginosus*. It has transverse blotches of brown on legs and arms. On each side of the middle on the back there is a series of rounded brown spots, four or five, each containing a red wart. Each lip has several spots, one below the eye.

HYLA SEPTENTRIONALIS *Tschudi*; *Blgr.*

Bahamas; Cuba.

At Havana on the thirtieth of December the writer took a large number of young ones: larvæ with hind legs, small specimens with the remnant of the tail, and others twice the size of the latter to the adult.

HYLA INSULSA *Cope*; *Blgr.*

Cuba.

HYLA DOMINICENSIS (Bibr.) *Tschudi*; *Blgr.*

Puerto Plata, San Domingo; Isle des Vaches.

HYLA OVATA *Cope*; *Blgr.*

Jeremie, Hayti.

HYLA PULCHRILINEATA *Cope*.

Puerto Plata, San Domingo.

HYLA PARDALIS *Spix.*

Trinidad.